

Objective 2.01

Distance and Midpoint

1. At cross country practice, Joshua ran 4 miles north and 2 miles east of the track. Justin ran 3 miles west and 3 miles south. Which student got further, distance-wise?

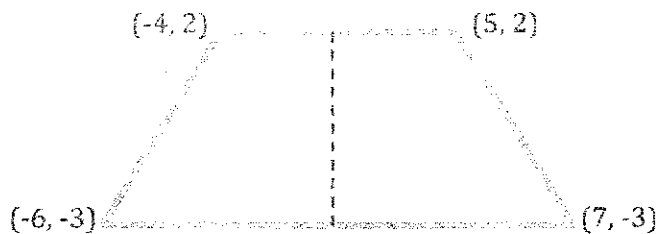
2. Point X is between W and Z on segment \overline{WZ} . Point Y is between X and Z. $\overline{WZ} = 10in.$ and $\overline{WX} = 4in.$ Segments \overline{XY} and \overline{YZ} are congruent. What are their lengths?

3. The points (5, 2) and (3, -8) are the endpoints of a circle. What is the length of the radius?

4. Find the perimeter of the triangle with the vertices (-3, 0), (2, 4) and (-3, 1).

5. Find the midpoint between the points (-10, 3) and (12, -18).

6. Find the height of the trapezoid. (The height is represented by the bisector, or dashed line.).



7. The Smithstone Mall is located 4 miles north and 2 miles east of the capital. The Riverdale Mall is located 5 miles west and 1 mile south of the capital. When your school visited the capital for a field trip, the chaperones argued about which mall was closest to the capital.

Lisa's mother said Smithstone was closer

David's father said Riverdale was closer

Natalie's mother said they were of equal distance

Which parent was correct and by how many miles?